



cc: Wayne
Task: 3934

January 20, 2011

Mr. Paul Baker
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: M/023/003 – Brush Mine – Monitor Amendment

Dear Paul,

On behalf of Brush Resources, Inc. I am submitting responses to DOGM's December 28, 2010 comments regarding the Monitor pit amendment. I've included a form MR-REV to clarify what pages are being replaced, added, or deleted in this package.

Please feel free to call me or John Wagner if you have any questions. I can be reached at the number listed in the footer. John's phone number is 435-864-2701.

Thanks for your prompt response to the last submittal. We appreciate your efforts.

Sincerely,

Ms. Marit Sawyer
Permitting Specialist
JBR Environmental Consultants

encl: Monitor Amendment, Review 2

ec: John Wagner – Brush Resources, Inc. w/ enclosure

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DIV. OF OIL, GAS & MINING

JBR Environmental Consultants, Inc.

Corporate Headquarters

8160 S. Highland Dr.

Sandy, Utah 84093

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Application for Mineral Mine Plan Revision or Amendment

Operator:

Brush Resources, Inc.

Mine Name:

File Number: **M/023/003**

Monitor Pit Amendment

Provide a detailed listing of all changes to the mining and reclamation plan that will be required as a result of this change. Individually list all maps and drawings that are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise or amend the existing Mining and Reclamation Plan. **Include page, section and drawing numbers as part of the description.**

DETAILED SCHEDULE OF CHANGES TO THE MINING AND RECLAMATION PLAN

DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED

2nd Round Revision

<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	Page 5 (modified Jan 2011)
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	Page 6 (modified Jan 2011)
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I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.

Marit Sawyer Marit Sawyer, permitting consultant January 20, 2010
Print Name Sign Name, Position Date

Return to:

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: (801) 538-5291 Fax: (801) 359-3940

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FOR DOGM USE ONLY:

File #: M/ /

Approved:

Bond Adjustment: from (\$) to \$

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DIV. OF OIL, GAS & MINING

Reply to comments, dated January 17, 2011

**FIRST REVIEW OF AMENDED NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

**Brush Resources, Topaz Mine
M/023/0003
December 28, 2010**

R647-4-106 - Operation Plan

General Operation Comments

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	Page 5 Page 11 Page 79	The current plan contains several references to eight pits. These need to be updated. These include, but are not limited to, page 5 last paragraph, page 11, Table 4.2-1, and Table 9.1-1.	whw	
2				

R647-4-113 – Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
3	Page 11	Page 11 says the escalation year is to be 2005. This should be updated to 2011 or, if possible, modified so it does not need to be updated every time the surety is reviewed.	WHW	
4	Plate 12	The map should be updated to show areas that have been partially reclaimed and are now only waiting for vegetation to be established and the three-year growth period to be finished.	WHW	
5	Table 9.1-1	Update Table 9.1-1 (last updated 2004).	WHW	
6	Appendix 7 and 8	Please submit updated surety calculations using the spreadsheet available on the Division's web site at http://linux1.ogm.utah.gov/WebStuff/wwwroot/minerals/bonding_worksheets.html . The bond is due to be re-evaluated in 2011, so the calculation should include escalation of the surety for the entire site to 2016.	WHW	

Reply to comments

General Operation Comments

Comment #1:

The "references to eight pits" on Page 5 defines the scope of the initial logical mining unit ("LMU") phase ("Phase 1") as eight pits (with dumps, backfills, and ore pads). The scope has changed, in that the Monitor Phase 1 project is being amended. The original plan was to develop one Monitor pit (pit 1 of 8). The three Fluro LMU pits were opened simultaneously (pits 2-4 of 8), as were the three Rainbow LMU pits (pits 5-7 of the 8 noted) and the South Wind (pit 8 of 8) was included as part of the phase (see Section 5.1.1 and Table 5.1-1). The eight LMU pits in Phase 1 are now being expanded to ten LMU pits by the addition of two LMU pits in the proposed Monitor Phase 1 Amendment, currently under review. Please insert the enclosed updated Pages 5, 6, and 6A into the current Amendment.

Page 11 has no eight pit reference. Please see the reply to Comment #3 below for further information regarding escalation dates.

Table 4.2-1 does not refer to the eight Phase 1 LMU pits introduced on Page 5. Instead, this table defines the open pits completed, in progress, or approved at the time of the last amendment submittal (see Section 4.2). There have been changes to the status of this table, and since it is not directly relevant to the current amendment, it will be updated and enclosed with the annual report. Please note that the approved Phase 1 LMU pits have been added to this update. Please insert the updated Table 4.2-1 when received into the approved Mining and Reclamation Plan ("Plan").

Table 9.1-1 as is, does not include the "eight pits". Please see the reply to Comment #5 below for further information.

Surety Comments:

Comment #3:

The reclamation contract explanation that concludes on Page 11 is related to the original reclamation cost estimate and not the current recalculation and escalation requirement. It is intended to be historical information only, and does not change. The current surety, due for escalation and recalculation in 2011 and every 5 years thereafter, will be clarified on an updated Page 11 and enclosed with the Annual Report. Please insert the updated Page 11 into the approved Plan.

Comment #4:

Plate 12 will be updated and enclosed in the Annual Report, along with the Monitor Phase 1 amendment information (if it is approved in time). Please be advised that the company has an approved alternative standard to the three-year revegetation standard. Therefore, the approved standard does not require a three-year waiting period. Please see Section 7.13 in the Plan for details.

Comment #5:

Table 9.1-1 defines the outstanding unreclaimed areas at the end of 2004, prior to the approval of the December 2006 amendment to the Plan. There have been changes to the status of this table, due to variances approved in the 2006 amendment to the Plan as well as development of Phase 1. This table will be updated and enclosed with the bond re-evaluation and surety escalation scheduled for completion later this year. Please insert the updated Table 9.1-1 into the approved Plan at that time.

Comment #6

The bond recalculation for the existing and proposed disturbances will be completed using the Division's form. The estimate will be submitted at a time subsequent to the approval of the technical aspects of the Monitor Phase 1 amendment, currently under review.

In the past, mining at the Topaz Mining properties has been accomplished using a combination of Company mine staff and excavation contractors to develop and operate two separate open pits – one a high-grade pit and the other a low-grade pit. Stockpiled ore from each pit was blended as necessary and shipped to the Company's mill located just north of Delta in Millard County. Contractors conducted pre-stripping operations removing all but the overburden tuff that immediately overlies the ore horizons. Drilling and blasting was also contracted. Company mine staff then used dozers, hydraulic excavators and scrapers to remove the remaining waste rock and to mine the ore. Ore was hauled to the stockpiles with scrapers and loaded into contractor-provided over-the-road belly dump trucks for transport to the mill. Waste rock was placed in dumps adjacent to the open pits or as backfill in mined-out open pits. Runoff and sediment release to natural drainages was controlled by waste rock dumps that block the ephemeral channels that cross the mine property and by diverting other runoff into open pits. Dump outcrops were composed dominantly of rhyolite blocks, rendering the outcrops coarse and durable and not susceptible to extensive erosion. The former practice of installing dump-top berms was abandoned in more recent years to prevent rapid erosion of finer dump-top and berm material after rapid rainstorms.

Under the proposed LMU approach, mining methods will remain essentially the same as those used in the past. Detailed evaluation of ore deposit geology and mining economics using sophisticated computer software has enabled the company to model the ore bodies and develop detailed pit and dump designs under varying economic scenarios. Each phase of future mine development will consist of multiple individual LMUs in multiple open pits. An LMU will be designed to expose sufficient ore to sustain mining for approximately one year.

The initial LMU mining phase, Phase I, will consist of ten open pits and related dumps, pit backfills and ore stockpiles. These LMUs will be mostly laybacks of established pit areas, as well as development in a previously undisturbed area. Table 4.2-1 in Section 4 of this plan shows the history of pits completed, in progress or approved before and after the 2006 amendment. Table 5.1-1 in Section 5 shows the open pit projects that are approved in the Phase 1 LMU mining plan portion of the same 2006 amendment.

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Phase I development will take place in the Fluro, Rainbow, Southwind, and Monitor deposit areas. A total of approximately 192 acres of new pit and dump-related disturbance will occur during Phase I, while approximately 26 acres of pit backfill will be created. A total of approximately 92,000 cubic yards of topsoil or topsoil substitute are anticipated to be recovered during Phase I. Concurrent reclamation during Phase I will require approximately 47,800 cubic yards of topsoil. Surplus topsoil, plus the quantity of topsoil in existing stockpiles will be retained for future reclamation. Existing stockpiled topsoil will be used first to the extent possible except when new topsoil salvage is underway and ultimate dump or backfill surfaces are prepared to receive topsoil and be revegetated in the coming fall season. In that case, the topsoil will be live-hauled and placed on the dump surfaces immediately after it is salvaged. Runoff and sedimentation will be managed and controlled in the same way that it has been in the past.

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Ancillary facilities that support the mining operations include an equipment shop, above-ground fuel and water storage facilities, dust suppression water supply system, Class IIIb landfill, laboratory, administrative and engineering offices, and staff support buildings. All of the buildings are modular with the exception of the shop buildings, which are metal-clad and frame, slab-on-grade structures. These existing facilities will be used for the foreseeable future to support on-going operations. Facilities may be replaced or upgraded, but no new ancillary facilities are currently contemplated.

The Company has entered into an agreement with Juab County for maintenance, relocation, and upgrading of County Roads. This agreement calls for relocation of certain County roads to allow for pit and dump expansion and upgrading of at least one County road for ore haulage purposes. In accordance with the agreement, County roads affected by mining operations will either be temporarily closed or removed, as needed, and then re-established or be permanently closed and reclaimed. The agreement allows flexibility in planning for use and closure of roads as mining progresses; specific road closures and re-routings have only been agreed upon for

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Phase I of proposed mining operations. County roads that are to remain after mining will not be reclaimed.

Ultimate mine development is currently planned to include mining of all known ore bodies to the maximum depth economics will allow using open pit methods. This will involve continued development of the Rainbow, Roadside/Fluro, Monitor, and Blue Chalk/Section 16 ore bodies as well as development of new open pits at the Southwind

adjacent to the stripping area according to the approved mining and reclamation plan in place at the time.

The technique for mining the ore is a modified bench system where the mining bench generally follows the ore body's strike and migrates down dip as mining advances. The beryllium mineralization in the host tuff is visually indistinguishable from the unmineralized tuff, widely disseminated and relatively low grade. These characteristics require a unique, highly sophisticated approach to determination of beryllium grade and ore control. The ore is sampled extensively, mapped meticulously, and dressed and lifted to stockpile with the utmost care. All engineering and mining efforts revolve around the ability to detect the beryllium with the neutron-activated beryllium analyzer instrument ("Berylometer"). The laboratory Berylometer is used to assay the drilling samples to enable detailed mine planning, and the field (portable) Berylometer is used to determine the exact point of cutoff in mining.

4.2 Pit Complexes

The Company's mining operations consist of twelve open pit projects along with their associated adjacent overburden dumps that existed prior to the amendment approved in 2006. Upon approval of the 2006 amendment, eight additional open pit projects were scheduled for development under the Phase 1 LMU plan (see Section 5). In addition, there are two approved open pit projects that were withdrawn from development in 2002. Table 4.2-1 lists the open pit projects completed, in progress, or approved to date.

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Table 4.2-1 Open Pits Completed, in Progress or Approved

Completed Open Pit Projects	Year(s) Opened	Year Closed
Roadside I	1968-69	1990
Blue Chalk North #1	1971-72	<u>Varianced 2006</u>
Fluro #1	1974-75	1990
Taurus	1979	1994
Sigma Emma & Little Sigma Emma	1979-80	1994
Roadside II	1981	1996
Rainbow #1	1985	1996
Blue Chalk South #1	1985-86	<u>Varianced 2006</u>
Roadside/Fluro #3	1990-91	TBD
Section 16 North #1	1990-91	<u>Varianced 2006</u>
<u>Monitor #3</u>	<u>1996-97</u>	<u>TBD</u>
<u>Blue Chalk North #2</u>	<u>1996-97</u>	<u>Varianced 2006</u>
<u>Fluro Phase 1 LMU 1, 2, & 3</u>	<u>2007</u>	<u>TBD</u>
Open Pit Projects in Progress	Years Opened	Year Closed
<u>Rainbow Phase 1 LMU 1, 2, & 3</u>	<u>2009-10</u>	<u>TBD</u>
Approved Open Pit Projects	Year Approved	Year Closed
Rainbow #2	2001	<u>Withdrawn 2002</u>
Section 16 South #1	2001	<u>Withdrawn 2002</u>
<u>Monitor Phase 1 LMU 1</u>	<u>2006</u>	<u>TBD</u>
<u>South Wind Phase 1 LMU 1</u>	<u>2006</u>	<u>TBD</u>

Varianced – Released from bond under a DOGM-approved variance to RS 247-4 rules

TBD – To Be Determined

Withdrawn – withdrawn from Brush's development plans and reclamation surety bonding

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4.3 Mining Sequence

Formulating the mining sequence on the Company's properties has evolved over several decades of exploration, development, and operations. Early on, geological and geochemical studies identified the existence of beryllium mineralization in economic quantities. Exploration drilling was rather quickly replaced with development drilling by several competing companies over seven principal ore trends. The Company eventually acquired the vast majority of the competitor's properties and data. The various ore bodies differ in physical and chemical characteristics; such as ore grade distribution, ore thickness, metallurgy, dip angle, minor faulting effects and rock mechanics. However, the ore bodies also have many traits in common; such as the stratigraphic sequence, lithology, and the ore bed strike and major fault orientations. The Company has taken advantage of the similarities in order to standardize development to the extent possible. The mining sequence as it progresses after discovery and before reclamation is as follows:

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